

Appl. No. 10/799,417  
Amtd. Dated July 14, 2005  
Reply to Office Action of March 14, 2005

**• • R E M A R K S / A R G U M E N T S • •**

By the present amendment new dependent claims 5 and 6 have been added.

New claim 5 recites applying a gel coating to the seeds.

New claim 6 recites coating the seeds with an alginic acid-based aqueous solution and/or dipping the seeds into a chemical solution for improving the germination rate of the seeds.

Support for new claims 5 and 6 can be found in the sections entitled "Examination on application to gel-coated seed" and "Basic examination on chemical treatment of seeds" on pages 7 and 9 of the re-typed specification.

Entry of the changes to the claims is respectfully requested.

Claims 2-6 are pending in this application.

Claims 3 and 4 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,261,139 to Pogue.

Claim 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Pogue.

For the reasons set forth above, it is submitted that all of the pending claims are allowable over Pogue and the outstanding rejections based upon Pogue should therefore properly be withdrawn.

Favorable reconsideration by the Examiner is earnestly solicited.

The Examiner has relied upon Pogue as disclosing:

...a process for collecting seeds from a lump consisting of a plurality of seeds having fluffy fibers (Pogue refers the fluffy fibers as "awn" or "beard"), comprising the steps of collecting the lump from a natural environment (col. 3, line 30 where Pogue

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discloses seed clusters); disentangling the lump after collecting the lump (col. 3, lines 29-30, where Pogue uses an elevator system to break apart the seed clusters); and burning the fluffy fibers after the disentanglement of the lump (col. 3, lines 36-68, Pogue discloses using a burner assembly to burn the awn or beard of the seed).

Pogue teaches multiple burning steps that are accompanied (separated by) cooling steps.

Applicants' independent claim 1 requires a single burning step.

In the paragraph bridging columns 5 and 6 Pogue teaches:

... six stages of treatment have been found sufficient to remove substantially all awn. More or less stages, of course, may be used depending on the amount of awn desired to be removed. Indeed, if the heat generated by burner assembly 24 were suitably controlled and if the seed were transported in such manner that the seed would not bunch together and seed kernels were evenly exposed to the flame treatment, a single stage may be used to remove substantially all of the awn without seed damage.

It is clear that Pogue found and concluded that six (6) burning stages were needed to "remove substantially all awn."

Although Pogue goes on to hypothesize:

...if the heat generated by burner assembly 24 were suitably controlled and if the seed were transported in such manner that the seed would not bunch together and seed kernels were evenly exposed to the flame treatment, a single stage may be used to remove substantially all of the awn without seed damage,

Pogue does not teach that a single burning step works and certainly does not provide any working examples of processes in which a single burning step is used.

At best, Pogue theorizes that it may be possible to conduct a single burning step, but certainly does not disclose how such a single burning step could be performed.

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Absent disclosing how a single burning step could be conducted, and in the absence of any specific example of a single burning step, Pogue cannot be relied upon as teaching (i.e., enabling) a single burning step.

Anticipation under 35 U.S.C. §102 has to be based upon a prior art teaching - not what the prior only hypothesizes or indicates might be possible. Such is not a prior art teaching.

Note, Pogue states that "*if* the heat generated by burner assembly 24 were *suitably controlled* and *if* the seed were *transported in such manner* that the seed would not bunch together and seed kernels were evenly exposed to the flame treatment, a single stage *may* be used to remove substantially all of the awn without seed damage."

Pogue does not provide a teaching of how to control the burner or how to transport the seed "in such a manner" to enable a single burning.

The Examiner will note that Pogue actually teaches the use of a specific conveyer system to transport the seeds.

In this regard, Pogue teaches prior art means of transporting seeds that use augers (column 2, lines 14-16), trough assemblies (column 2, lines 27-29), conveyor assemblies (column 2, lines 29-32), flash burning (similar to gas suspension - column 2, lines 36-40), wire screens (column 2, lines 41-44) and continuous belts (column 2, lines 45-47).

After rejecting all these prior art means of transporting seeds, Pogue concluded that the disclosed elevator transporting system was the most effective - and - even at that Pogue expressly teaches that "six stages of treatment have been found sufficient to remove substantially all awn."

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Pogue does not teach that less than six stages of treatment will remove all or substantially all the awn.

It follows that if Pogue determined that the most efficient/effective elevator transporting system required six burning stages to remove "*substantially*" all the awn, an even better process - capable of using a single burning stage - is well beyond the scope of the teachings and findings of Pogue.

In addition to teaching six burning stages, Pogue teaches alternating burning and cooling steps.

Specifically at column 2, lines 57-66 Pogue teaches:

After passing through that first flame treatment, the seed is cooled by passing cooling air over the seed. That cooling air serves primarily two purposes. The first is to cool the seed and allow for successive flame treatments without seed kernel damage. The second purpose served is that the air removes combustion products formed during the flame treating process. An added advantage is the cooling air removes light seed having a low incidence of germination. The resulting treated seed thus, in addition to having the awn removed, may have a higher incidence of germination than prior to treatment.

The cooling taught by Pogue is necessary to progressively burn the seed awn without causing damage to the seeds. That is, Pogue specifically teaches a series of burns that are separated by a series of cooling stages, rather than a single burning step that Pogue indicates would damage the seeds.

This goes further to teach against the "hypothetical" single burning process that is not enabled or fully disclosed or exemplified in Pogue.

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In contrast to Pogue, applicants' process burns off fluffy fibers which, when the seeds are properly separated, burn quickly without causing burn damage to the seeds.

In contrast, the awn of bafflegrass seed is needle-shaped and relatively thick so that when burnt it can tend to create too much heat which Pogue realize and expressly controls by the use of a plurality (at least 6) of burning stages that are further separated by cooling stages.

With regard to applicants' claim 2 the Examiner concedes that Pogue "discloses awn or beard seeds but he does not specifically state that these seeds are from plants such as cattail, cogon, redtop, and reed."

Nevertheless, the Examiner takes the position that:

It would have been obvious....to perform the method of collecting seeds as taught by Pogue with the seeds from the above plants depending on the user's preference as long as the seeds have awn, beard or fluffy fibers to be burned or flamed as taught by Pogue.

The Examiner's position overlooks the fact that the process taught by Pogue is not suitable for seeds that have fluffy fibers, because successive flame treatment of such seeds is superfluous (as discovered by applicants), and would cause seed damage and result in low germination.

Therefore it would not have been obvious to subject seeds having fluffy fibers to the process taught by Pogue as the Examiner contends.

Based upon the above distinctions between Pogue and the present invention, and the overall teachings of Pogue, properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon Pogue as required under 35 U.S.C. §102 as anticipating applicants' claimed invention.

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Moreover the Examiner cannot rely upon Pogue as required under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicants' claimed invention.

It is, therefore, submitted that any reliance upon Pogue would be improper inasmuch as Pogue does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of Pogue and the outstanding rejection of the claims should hence be withdrawn.

Therefore, reconsideration and withdrawal of the outstanding rejection of the claims and an early allowance of the claims is believed to be in order.

It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

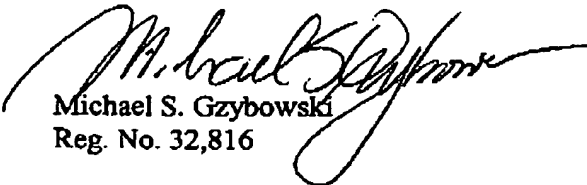
If upon consideration of the above, the Examiner should feel that there remain outstanding issues in the present application that could be resolved; the Examiner is invited to contact applicants' patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of

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time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,



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